

# VITAMIN CHART

## VITAMIN A

### FUNCTIONS:

- 1— Promotes tissue formation.
- 2— Increases blood platelets.
- 3— Promotes growth and feeling of well-being.
- 4— Promotes appetite and digestion, especially in children.
- 5— Essential to the health and integrity of epithelial tissue and its resistance to infection, notably of eyes, tonsils, sinuses, air passages, lungs and gastro-intestinal tract.

### RESULTS OF DEFICIENCY:

- 1— Loss of appetite.
- 2— Retardation of growth and development.
- 3— Physical weakness.
- 4— Susceptibility to disease of the eyes (night blindness, corneal ulcers), ears (otitis media), kidneys.
- 5— Interferes with reproduction by failure of ovulation in the female and temporary injury to the seminiferous epithelium in the male.
- 6— Secondary anemia.
- 7— Excessive growth of lymphoid tissue.
- 8— Dullness or perversion of special senses.
- 9— Formation of kidney stones.
- 10— Cystitis, gastritis, sinusitis, bronchitis.

### RESULTS OF ABSENCE:

- 1— Xerophthalmia (eye inflammation and ulcers).
- 2— Cessation of growth.
- 3— Failure of appetite and digestion.
- 4— Sterility of both sexes.

### MOST RELIABLE SOURCES:

Whole milk, butter, cheese, egg yolk, cod liver oil, thin green leafy vegetables, yellow corns, yellow sweet potatoes, carrots, spinach, green beans, peas, bananas and fish oils.

## VITAMIN B

### FUNCTIONS:

- 1— Increases appetite.
- 2— Promotes digestion.
- 3— Promotes growth by stimulating metabolic processes.
- 4— Protects body from certain nerve and brain diseases.
- 5— Increases quantity and improves quality of milk during lactation. Mothers who do not have enough milk usually lack Vitamin B.
- 6— Stimulates pancreatic secretions, including insulin.
- 7— Necessary to maintenance of thyroid and adrenal glands.
- 8— Necessary to normal function of anterior pituitary.

### RESULTS OF DEFICIENCY:

- 1— Impairment of appetite and digestion.
- 2— Loss of weight.
- 3— Loss of vigor.
- 4— Constipation.
- 5— Emaciation.

- 6— Subnormal temperature.
- 7— Pathological enlargement, and functional disorders of the thymus, adrenals, pancreas, testes, ovaries, spleen, heart, liver, kidneys, stomach, thyroid, brain and anterior pituitary.
- 8— Various manifestations referable to the nervous system, leading to paralysis of groups of muscles.
- 9— Tendency to diabetes.
- 10— Tendency to nervous disorders.
- 11— Tendency to disorders of alimentary mucosa.
- 12— Tendency to thyroid disorders.
- 13— Reduces hemoglobin.
- 14— Loss of sex potentia because of anterior pituitary inactivity.

### RESULTS OF ABSENCE:

- 1— Beri-beri (paralysis of certain groups of muscles).
- 2— Peripheral and other forms of neuritis.
- 3— Atrophy of certain lymphoid tissues throughout the body.

### MOST RELIABLE SOURCES:

Whole grain cereals, peas, and beans, raw fruits, buttermilk, corn, cabbage, spinach, egg yolk, honey, yeast.

## VITAMIN C

### FUNCTIONS:

- 1— Essential to the health and integrity of endothelial tissues.
- 2— Cooperates with B in nutrition of thyro-adrenal system.
- 3— Is essential to oxygen metabolism.
- 4— Cooperates with D, F, and G in regulation of calcium metabolism.
- 5— Promotes leucocytic and phagocytic activity.
- 6— Maintains high carrying-capacity of blood for oxygen, thereby minimizing the load on the heart.

### RESULTS OF DEFICIENCY:

- 1— Tendency to bruise easily, producing "black and blue" spots in skin.
- 2— Loss in weight.
- 3— Physical weakness.
- 4— Shortness of breath.
- 5— Rapid respiration.
- 6— Rapid heart action.
- 7— Tendency to hemorrhage.
- 8— Reduced hemoglobin and tendency to certain types of anemia.
- 9— Hypertrophy and reduced secretion of adrenals.
- 10— Hypertrophy or morbid secretion of thyroid (toxic goiter).
- 11— Decrease in weight of spleen, liver, stomach and intestines. B deficiency a cooperating factor in this.
- 12— Necrosis of pulp of teeth. Most cases of tooth decay are due to vitamin C deficiency.
- 13— Friability of bones.
- 14— Swelling and redness of gums.
- 15— Tendency to disease of blood vessels and heart.
- 16— Tendency to peptic and duodenal ulcers.
- 17— Susceptibility to infections.

Bibliographic sources of these items are always available to professional inquirers from our Reference Department.

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(OVER)

## VITAMIN CHART

### RESULTS OF ABSENCE:

- 1 — Scurvy.

### MOST RELIABLE SOURCES:

Green peppers, oranges, lemons, tomatoes raw or canned (without the addition of soda), bananas, and other raw fruits, sprouted grains, green leafy vegetables, potatoes, unpasteurized milk, liver and raw cabbage.

*Vitamin C is not stored in the body. A fresh supply must be had every day.*

## VITAMIN D

### FUNCTIONS:

- 1 — Controls calcium equilibrium and regulates mineral metabolism.

### RESULTS OF DEFICIENCY:

- 1 — Muscular weakness.
- 2 — Instability of the nervous system.
- 3 — Lack of resistance against infections.
- 4 — Marked increase in specific irritability of nervous tissues.

### RESULTS OF ABSENCE:

- 1 — Rickets.
- 2 — Deformity of bones in the child.
- 3 — Defective development of teeth.

*Vitamin D, the Most Dangerous Vitamin, Causes Arterio-Sclerosis in Overdosage and Premature Symptoms of Senility.*

### MOST RELIABLE SOURCES:

Cod liver oil and other fish oils, egg yolk, whole milk and spinach. Exposure of naked skin to sunshine or ultra violet light. Few foods contain Vitamin D. Nature expects the animal to get this vitamin from the sunshine by the short wave length rays changing the ergosterol in the skin into Vitamin D.

## VITAMIN E

### FUNCTIONS:

- 1 — Necessary to reproduction — in both male and female.
- 2 — Probably concerned in the metabolism of calcium and magnesium by increasing their diffusibility in the tissue fluids, and increasing the mineral nutrition to the nervous and muscular tissues. This action also prevents the formation of calcium deposits in blood vessel walls, tendency to arterial hypertension, and loss of motility of eye lens.

### SOME BASIC PRINCIPLES:

- 1 — Proper nutrition is the foundation of health.
- 2 — The best way to get your vitamins is from fresh foods.
- 3 — If you need vitamin concentrates, beware of preparations that fail to contain the complete complexes as found in foods. Single factors and synthetic substitutes are dangerous. "These are highly inferior to

### RESULTS OF DEFICIENCY:

- 1 — Sterility. Deficiency causes permanent and irreparable injury to the semeniferous epithelium in the male, temporary sterility in the female.
- 2 — Mysterious pains in soft tissues, nervous system and muscles.
- 3 — Tendency to cerebral hemorrhage.
- 4 — Tendency to arthritis.
- 5 — Loss of accommodation in lens and iris of the eye.
- 6 — Dermatitis, eczema, urticaria.

### MOST RELIABLE SOURCES:

Whole grain cereals (whole wheat, whole corn, etc.), milk, lettuce, watercress and raw fruits.

## VITAMIN F

### FUNCTIONS:

- 1 — Promotes growth.
- 2 — Concerned with calcium metabolism. Reduces serum calcium, cooperates with Vitamin D if both are present, but aggravates rickets if the supply of D is deficient.
- 3 — Aid in anemic conditions of deficiency origin.
- 4 — Improves skin color and circulation.

### RESULTS OF DEFICIENCY:

- 1 — Dry skin.
- 2 — Fatigability.
- 3 — Distress in hot weather.
- 4 — Constipation.
- 5 — Susceptibility to Vitamin D poisoning.
- 6 — Friability of bones (especially in the aged).

### MOST RELIABLE SOURCES:

Associated with E in some cereals — oats and rye in particular. Probably present in milk and cod liver oil, and responsible for the greatly reduced toxicity of the Vitamin D content of cod liver oil over the synthetic vitamin.

## VITAMIN G

### FUNCTIONS:

- 1 — Necessary to growth and development.
- 2 — Necessary to normal calcium metabolism and erythrocyte formation.
- 3 — Maintains integrity of tissues exposed to digestive juices.

### RESULTS OF DEFICIENCY:

- 1 — Underdevelopment.
- 2 — Cataract of the eye and other calcium deposits.
- 3 — Pellagra.
- 4 — Abnormally slow regeneration of erythrocytes — secondary anemia.
- 5 — Gastritis, ulcers of stomach and duodenum.

### MOST RELIABLE SOURCES:

Cereal germ, brewer's yeast, eggs.

vitamins from natural sources, also the synthetic product is well known to be far more toxic." (Dr. Casimir Funk, first to isolate vitamin B<sub>1</sub>, and originator of the word "vitamin.")

- 4 — All the vitamins exist naturally as complexes, and each consists of a group of cooperating synergists that must all be present to produce best results.